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SYNOPSIS OF THE NORTH AMERICAN HYPOCREACEAE, WITH DESCRIPTIONS OF THE SPECIES.

BY J. B. ELLIS AND B. M. EVERHART.

(Concluded.)

GEN. X, LASIONECTRIA, Sacc.—Perithecia hairy.

145. LASIONECTRIA POLIOSA, E. & E. Parasitic on *Diatrype platystoma*, Schw., Florida, January, 1886. W. W. Calkins, No. 138. Journ. Mycol. II, p. 39.

Perithecia scattered, membranaceous, orange red, ovate-globose, one sixth millim. in diam., sparsely clothed, except the papilliform ostiolum, with straight, spreading, hyaline, septate, glandular hairs, about equal in length to half the diameter of the perithecia; asci sessile, oblong-cylindrical, about 75 x 12 μ; sporidia biseriate, oblong or subfusiform-oblong and subinequilateral, hyaline, uniseptate and slightly constricted at the septum, containing several nuclei irregularly placed, 18—22 x 7—8 μ, ends rounded or subacute. The hairs which clothe the perithecia are at first about seven μ thick, with the ends obtuse and a little swollen, but at length they become elongated and attenuated above. This must be nearly allied to *N. tephrothele*, Berk., but in the description of that species the perithecia are not described as hairy.

146. LASIONECTRIA LASIODERMA (Ell.). Am. Nat., February, 1886, p. 194. Parasitic on old *Valsa lutescens*, Ell.. on dead limbs of *Quercus coccinea*, lying on the ground, Newfield, N. J., June, 1882.

Perithecia mostly single, subamorphous, obtuse-conic, broadly perforated above, about one fourth millim. high, shaggy with short, septate, obtuse, imperfectly-developed hairs, dull red when dry, pale orange when moist; asci cylindrical, 75—80 x 7—8 μ; sporidia uniseriate, elliptical, hyaline, uniseptate, scarcely constricted, 11—12 x 4—5 μ.

147. Lasionectria Rexiana (Ell.) l. c. Parasitic on *Myxogasters* (*Chondrioderma spumarioides*), Adirondack Mts., N. Y., August, 1882. Dr. Geo. A. Rex.

Perithecia minute, less than one fourth millim. in diam., flesh-color, becoming darker, slightly compressed laterally, enveloped in white down, which forms little tufts, appearing under the lens like some minute, tufted, mucedinous growth; asci linear, 35—40 μ long, evanescent; sporidia uniseriate, oblong, hyaline, 1—2-nucleate (becoming uniseptate?).

Gen. XI, Gibberella, Sacc.—Perithecia superficial, smooth, bluish or violet.

148. Gibberella pulicaris (Fr.) S. M. II, p. 417.

Cæspitose, stroma cortical; perithecia crowded, superficial, purplish, at length collapsing or laterally compressed; asci oblong, sessile, 8-spored, 60—75 x 12—16 μ; sporidia biseriate, ovate, elliptical or subpyriform, subobtuse, somewhat curved, 3-septate, pale yellowish, 18—20 x 6—8 μ. The conidial stage is considered to be *Fusarium sambucinum*, Fckl., or *F. roseum*, Lk. This is quite a common species and is found on bark of dead limbs of various deciduous trees and on dead herbaceous stems—especially on dead stalks of *Zea Mays* and also on the grain.

149. Gibberella Saubinetii, Mont. Sacc. Syll. II, p. 554.

Perithecia gregarious, confluent-cæspitose and concrescent, coriaceo-membranaceous, verrucose, at length flaccid, plicate, ovoid, subcontracted at the base, bluish, 200—300 x 170—220 μ, papillate; asci oblong-lanceolate, acuminate above, contracted at the base into a short, thick stipe, 8-spored, 60—76 x 10—12 μ; sporidia uniseriate or subbiseriate, fusiform, curved or straight, subacute, 3-septate, but scarcely constricted, nearly hyaline, 18—24 x 4—5 μ; conidial stage, *Fusarium roseum*, Lk. The characters of this species, as here given, are taken from Sacc. Sylloge. From the specimens at our command, we have always found it difficult to separate this from the preceding species.

Gen. XII, Hyponectria, Sacc. Syll. II, p. 455—Perithecia covered, otherwise as in *Nectria*.

150. Hyponectria Gossypii (Schw.) Syn. Car., No. 207. On dead capsules of cotton plant, Carolina (Schweinitz).

Scattered, rather soft, immersed, perithecia globose, purplish flesh-color; ostiolum elongated to the surface and discharging gelatinous matter. The minute perithecia are deeply sunk in the substance of the immature capsules so as not to be seen unless the capsule is cut open, but, through the elongated ostiola, a gelatinous substance is discharged, which hardens on the surface of the capsule and gives it a purplish color. In the mature specimens the surface of the capsules is granulose or papillose from the subjacent perithecia. We have seen no specimens of this species, but we have received from Prof. F. L. Scribner a *Fusarium* on capsules of cotton from South Carolina, which may be the conidial stage.

GEN. XIII, SPHÆROSTILBE, Tul. Carp. III, p. 103.—Perithecia associated with or growing at the base of the conidiophorous fungi (*Stilbum sp.*), otherwise as *Nectria*.

151. SPHÆROSTILBE FLAMMEA, Tul. l. c.

Perithecia globose, bright red, nearly smooth, crowded on and near the conidiophorus stroma (*Atractium flammeum*, B. & Rav.); asci obovate-oblong, 8-spored; sporidia ovate, obtuse, 1-septate, hyaline, slightly constricted, 12—16 x 5—6 μ. The conidial fungus, as represented in Rav. Fungi Car. V, 86, has the stromata at first narrow-conical, becoming finally flattened above and subpezizoid. The conidia linear-lanceolate, very large (80—100 x 6½ μ), a little curved, 6—9-septate, hyaline, with a tinge of rose color. On maple bark, Carolina (Ravenel); on *Salix*, Louisiana, Langlois, No. 377. Berkeley, in Grev. IV, p. 47, adds: "There is a very distinct species on *Magnolia glauca*, Car. Inf., No. 5005 (*Atractium pallidum*, B. & C.), with short, fusiform spores 13 μ long, with the endochrome retracted to either end."

152. SPHÆROSTILBE COCCOPHILA, Tul. l. c.

Perithecia numerous, on and near the conidiophorous stromata, very small, globose, obtuse, minutely papillate, very smooth, bright red, often 4—5 together, collapsing when old; asci linear, 60—80 x 6½ μ; sporidia oblique, 1-seriate, ovate, 10 x 5 μ, 1-septate, subhyaline, slightly constricted. The conidial stage (*Microcera coccophila*, Desm., which has been sent from Florida by Dr. Martin and collected in Carolina by Mr. Ravenel (F. Am., 286), has the stroma arising from various species of dead bark lice. It is red, obtuse and about two millim. high. The conidia are linear-lanceolate, 5—7-septate and 55—65 x 5—6 μ, nearly hyaline.

153. SPHÆROSTILBE GRACILIPES, Tul. l. c.

Perithecia collected at the base of the stilbum, small (one third millim.), red, light pruinose, fading out; asci cylindric-clavate; sporidia uniseriate, ovoid, 12—16 x 4½—6 μ. The conidiophorous fungus (*Stilbum corynoides*, E. & E.) has the stem slender, gray, becoming nearly black, ½—¼ cm. long, head globose (½—¼ millim.), orange-yellow, becoming fuscous; conidia oblong-elliptical, hyaline, 5—6 x 1½ μ. On *Hibiscus*, *Carya*, *Melia* and *Platanus*, Carolina (Curtis and Ravenel); on *Melia*, Louisiana (Langlois).

154. SPHÆROSTILBE CINNABARINA, Tul. l. c.

Perithecia growing at the base of the conidiophorous stroma (*Stilbum cinnabarinum*, Mont.), few, sessile, globose, scarcely papillate, very smooth, orange-red, finally collapsing partially; asci clavate-oblong, 80 x 13—16 μ; sporidia biseriate, ovate-oblong, 22—26 x 7 μ, plurinucleate; conidial stroma bacillary, clavate above, red, conidia ovoid, small, 3½ x 1½ μ. On trunks of *Carya*, *Morus* and *Rhus*, Carolina (Ravenel), Louisiana (Hale).

GEN. XIV, MELANOSPORA, Ca.—Perithecia simple, ostiolum subulate-rostrate, often divided and brush-like (penicellate) at the tip; sporidia fuscous, distinguished from *Ceratostoma* by the soft texture of the perithecia.

155. MELANOSPORA LAGENARIA (Pers.) On the hymenium of some old *Polyporus*, Adirondack Mts., N. Y. Peck, in 27th Rep. N. Y. State Mus., p. 110.

Perithecia scattered or gregarious, emergent at length and bare, sphæroid or subovoid, two fifths millim., rugulose, at first light tawny-yellow, finally liver-color and then black; beak straight or flexuous, attenuated above, same color as perithecium and many times longer; asci pedicellate, broad-clavate, 35—40 x 12—14 μ, 8-spored (also 4-spored, sec. De Not); sporidia in three series above, ellipsoid, attenuated at each end, simple, hyaline, becoming subfuscous, 11—12 x 6 μ. The foregoing is from Sacc. Syll. Prof. Peck says: "Asci very broad, delicate, fugacious; spores crowded, simple, elliptical, colored, 12—13 x 7½ μ." He also adds: "The spores are sometimes found adhering in a mass to the apex of the long, slender ostiolum. The subicular tomentum is present in some of the specimens, and there is sometimes a hairy appearance to the perithecia, which seems to be due to this tomemtum or to some mucedinous growth."

GEN. XV, ACROSPERMUM, Tode —Perithecia elongated or clavate, carnose or somewhat of a horn-like consistency; sporidia filiform.

156. ACROSPERMUM COMPRESSUM, Tode. On the dried stems of various herbaceous plants. N. A. F., No. 1318.

Perithecia solitary or subcæspitose, sessile, club shaped, attenuated above and generally compressed, pale at first, finally dark or olive-black, shining, smooth at first, becoming longitudinally subsulcate, 1—3 millim. high; asci filiform, very long (130—150 x 3—6 μ), 8-spored; sporidia packed side by side, filiform, pale, yellowish-hyaline, 90—100 x ½—1 μ; paraphyses slender.

157. ACROSPERMUM VIRIDULUM, B. & C. Grev. IV, p. 161. On decayed herbaceous stems, So. Car. (Ravenel). On fallen pear leaves and on fallen hickory limb, New Jersey (Ellis). N. A. F., 857. Also on white oak leaves, Texas (Ravenel, 166).

Perithecia scattered, ovate, one third millim. high, abruptly contracted below into a short stipe-like base, obtuse above, greenish-cinereous, subfurfuraceous; asci linear, 150—200 x 5—6 μ; sporidia filiform, hyaline or slightly yellowish, about as long as the asci. The specimens on decaying hickory limb have the asci narrower (3½—4 μ), but do not appear to differ otherwise.

158. ACROSPERMUM FOLIICOLUM, B. & C. Grev. IV, p. 161. Rav. Fung. Car. II, 65. On fallen leaves of elm and of *Celtis*, So. Car. Rav.

This in color and shape resembles *A. compressum*, but is shorter, mostly less than one millim. high, the asci also are longer (300—400 μ); perithecia slightly pulverulent.

159. ACROSPERMUM RAVENELII, B. & C. Grev. l. c. On leaves of *Cercis*, *Vitis* and *Fraxinus*. So. Car. (Ravenel).

"Clavatum breve; ascis elongatis; sporidiis filiformibus, minute, short, slightly attenuated downwards, at length somewhat clavate; asci long, linear, flexuous; sporidia long, filiform." We have not seen this.

160. ACROSPERMUM CORRUGATUM, Ell., Bull. Torr. Bot. Club, VIII, p. 124. *A. fultum*, Harkness, Bull. Cal. Acad. Sci., February, 1884, p. 47. On weather-beaten wood, Pleasant Valley, Utah (alt., 6,000 ft.), S. J. Harkness. On dead leaves of *Eucalyptus*, San Francisco, Cala., Dr. H. W. Harkness.

Perithecia wedge-shaped or liguliform, 1—1½ millim. high, supported by buttress-like portions, which unite with the main body of the perithecium about half way up, strongly transversely-grooved on both sides above, black, compressed and truncate above, so that the apex is in shape like the edge of a chisel, the whole attached below to a brown, rooting mycelium; asci cylindric-clavate, tapering below to a long, slender pedicel, 400—500 x 8—9 μ, with long, slender paraphyses; sporidia linear, 300—350 x 1½—2 μ, separating into cylindrical, 3-septate joints which are 17—20 μ long.

Since writing the foregoing, we have received from Rev. A. B. Langlois specimens of what we take to be

161. NECTRIA VULGARIS, Speg., found on stumps of orange trees at Pointe a' la Hache. La.; perithecia densely gregarious or cæspitose, yellow-orange, becoming darker; sporidia oblong-elliptical, 1-septate, 10—13 x 3—4 μ.

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NOTES ON FLORIDA FUNGI.--No. 10.

BY W. W. CALKINS, CHICAGO, ILLINOIS.

137. HYPOMYCES ROSELLUS, Tul.—Found on a fallen rotten limb. Rare. Of a beautiful rose color.

138. VALSA STELLULATA, Fr.—Very common on dead hickory limbs.

139. LYCOGALA EPIDENDRON, Fr.—On decayed bark. Rare.

140. HEMIARCYRIA SERPULA, Pers.—On the under side of fallen trees or bark, lying in yellow snake-like coils.

141. HEMIARCYRIA RUBIFORMIS, Pers.—Common on fallen decayed hickory logs.

142. TRICHIA AFFINIS, Rost.—Found along with 140 and 141. More rare.

143. RADULUM MOLARE, Fr.—Not common. Margin reflexed. On fallen limbs.

144. RADULUM ORBICULARE, Fr.—Margin not reflexed. Rarer than 143.

145. RADULUM SPINULOSUM, B. & C.—An elegant species. Pure white when fresh. Very rare. On a fallen *Nyssa*.

146. RADULUM PALLIDUM, n. sp., Mss.—Different from the preceding, having some resemblance to *Kneiffia*.

147. AGARICUS SAPINEUS, Fr.—Common on pine logs.

148. DÆDALEA CONFRAGOSA, Pers.—Common on old logs.

149. DÆDALEA AMBIGUA, B. (*Trametes lactea*) Fr.—Not common.

150. HELOTIUM CASTANEUM, S. & E.—Rare. On leaves of *Devil wood*.

151. SPHÆRIA ACANTHOSTROMA, Mont.—Abundant on decayed fallen limbs of *Carpinus*. Not found on any other wood.

152. SPHÆRIA BARBIROSTRIS, Desf.—On a dead limb along with *Hypoxylon Howeanum*. First detected in the United States by Ellis.

153. CERACEA VERNICOSA, Cragin.—Rare on rotten wood.

154. HYPOCREA GELATINOSA.—On a decayed limb.

155. ISARIOPSIS CARNEA, E. & M.—On living leaves of *Osmanthus*. Not common.

156. LOPHIOSTOMA FLORIDANUM, E. & E.—A new species found by me on old *Diatrype stigma*. Described in April No. JOURN. MYCOL.

157. ARCYRIA POMIFORMIS, Roth.—Found on rotten wood.

158. DIMEROSPORIUM NIMBOSUM, E. & M., n. sp.—On dead *Smilax*

159. CONIOPHORA ——— (?).—Not yet determined. No. 551 of Ellis.

160. PENIOPHORA ——— (?)—Species not yet determined. No. 72 and 177 of Ellis.

161. ASTERINA PURPUREA, E. & M., n. sp.—On leaves of *Olea Americana*. Described in November No. JOURN. MYCOL.

162. NUMMULARIA BULLIARDI, Tul.—Abundant on decayed limbs.

163. GLENOSPORA CURTISII, B.—On living young *Myrica* and *Quercus*. It never starts on dead leaves.

The foregoing closes my work to December, 1886. My remark under No. 103 as to discovery by Ellis should refer to *Sphæria barbirostris*.

SKETCH OF DR. GEORG WINTER.

BY W. A. KELLERMAN.

Having enjoyed a short but pleasant personal acquaintance with Dr. Winter and worked under his direction in his own laboratory, it is with especial pleasure that I present to the readers of the JOURNAL OF MYCOLOGY a brief outline of his life and mycological work. His quiet enthusiasm, his thoroughness and conscientiousness in all his work, his uniform kindness to all associated with him, conspire to make him a most valuable and respected teacher.

He was born Oct. 1st, 1848, at Leipzig, Germany. He attended the Gymnasium in his native city, then went to Munich, where he studied one semester under Nægeli and Radlkofer. On returning to Leipzig, he studied in the botanical laboratory of Schenk and in the Zoological Institute of Leuckart. For a half year he was assistant provisionally to Prof. Kraus in the Botanical Institute at Halle. In October. 1873, he received his doctorate in philosophy at Leipzig, having for his thesis "Die Deutschen Sordarien."

Dr. Winter continued his mycological studies at Leipzig till 1876, when he removed to Zurich in Switzerland and became "Docent fuer Botanik" in the Polytechnicum and in 1878 the same also in the University. His lectures here included Cryptogams, Plant Diseases and Special Botany. Rabenhorst, the editor of Fungi Europæi, Algen Europæi, &c., died in 1881, and Dr. Winter undertook the continuation of his *Exsiccata*. Through the help of numerous American friends, he was enabled to widen the scope of this invaluable collection and make it Fungi Europæi et *Extra-Europæi*. The editorship of *Hedwigia* Rabenhorst gave over to Dr. Winter at the end of the year 1878 and the latter still continues to edit the same.

Domestic affairs made it necessary for Dr. Winter to return to Leipzig in 1883. From this time he has devoted himself exclusively to mycological studies, more particularly to his important and critical work, "Pilz-flora von Deutschland" (2d edition of Rabenhorst's Kryptogamen-flora, Pilze). Aside from this, his special attention is given to exotic fungi; he will also soon complete Monographs of the genera *Meliola* and *Asterina*. Being in correspondence with nearly all living mycologists, he has been able to make his herbarium of fungi extremely large, perhaps the third in rank of the entire world. It is especially rich in type specimens both of older and of living authors. It contains *complete* sets of the most valuable exsiccata, as of Fuckl, Rabenhorst, Klotzsch, Thuemen, Ravenel, Ellis, Plowright, Rehm, Kunze, &c. Dr. Winter's publications, so far as they concern fungi, are to date as follows :

1. Die Deutschen Sordarien, Halle, 1873.

2. Diagnosen und Notizen zu Rehm's Ascomyceten, Fasc. 1, 2. *Flora*, 1872.

3. Ueber den Heliotropismus von Peziza Fuckeliana. *Botanische Zeitung*, 1874.

4. Die durch Pilze verursachten Krankheiten der Kulturgewæchse. Leipzig, 1878.

5. Diagnosen neuer Pilze, *Hedwigia*, 1871.

6. Pyrenomycetes novi austriaci, *Hedwigia*, 1872.

7. Diagnosen neuer Pilze II, *Hedwigia*, 1872.

8. Mykologische Notizen, *Hedwigia*, 1873.

9. Mykologische Notizen, *Hedwigia*, 1874.

10. Hypocreopsis, ein neues Pyrenomyceten Genus, *Hedwigia*, 1875.

11. Ueber Napicladium Soraueri, *Hedwigia*, 1875.

12. Ueber das Aecidium von Puccinia osmundinacea, *Hedwigia*, 1875.

13. Cultur des Puccinia sessilis und deren Aecidium. Sitzungsberichte d. naturf. Gesellsch. zu Leipzig, 1874.

14. Mykologische Notizen, *Hedwigia*, 1877.

15. Ueber ein natuerliches System der Thallophyten, *Hedwigia*, 1879.

16. Einige Mittheilungen ueber die Schnelligkeit der Keimung der Pilzsporen und das Wachsthums ihrer Keimschlæuche, *Hedwigia*, 1879.

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28. Ueber die Gattung Harknessia, *Hedwigia*, 1882.

29. Ueber einige Nordamerikanische Pilze I et II, *Hedwigia*, 1882.

30. Mycologische Notizen, *Hedwigia*, 1884.

31. Exotische Pilze I, *Flora*, 1884.

32. Exotische Pilze II, *Hedwigia*, 1885.

33. Nachtræge und Berichtigungen zu Saccardo's Sylloge Fungorum, Vol. I, II, *Hedwigia*, 1885.

34. Winter und Demetrio; Beitræge zur Pilzflora von Missouri. *Hedwigia*, 1885.

35. Contributiones ad Floram mycologicum lusitanicum. Series V Boletim da Sociedade Broteriana, 1883.

36. Contributiones ad Floram mycologicum lusitanicum. Series VI Boletim da Sociedade Broteriana, 1884.

37. Ueber die Gattung Corynelia. Berichte der deutschen Botan. Gesellsch. 1884.

38. Nonnulli Fungi Paraguayensis a Balansa lecti, *Revue Mycologique*, Octobre, 1885.

39. New North American Fungi, *Bulletin Torr. Bot. Club*, No. 1, 1883.

40. New North American Fungi, *Bulletin Torr. Bot. Club*, No. 5, 1883,

41. New North American Fungi, JOURNAL OF MYCOLOGY, August. 1885.

42. Fungi novi Missouriensis, JOURNAL OF MYCOLOGY, October, 1885.

43. Rabenhorst's Kryptogamenflora von Deutschland, Oesterreich und der Schweiz. II Auflage: Die Pilze bearbeitet von Dr. G. Winter, Leipzig, von 1880 an.

TERFEZIA LEONIS, TUL.--TUBER NIVEUM (DESF.)

This highly esteemed species, known as the "White Truffle," has been sent from Northwestern Louisiana by Rev. A. B. Langlois, who reports it as quite common in the red sandy soil along the Red river in the vicinity of Natchitoches. It is much prized by the people there as a delicacy for the table, either eaten fresh or after having been sliced and dried. The specimens sent by Mr. L. were subglobose and one of them full two inches in diameter, strongly plicate or furrowed below, nearly smooth and pale reddish-brown outside, marbled white within and of compact texture much like a potato, but softer. When first dug from the ground the color is a pure white, the reddish-brown tint being due to exposure to the air. The asci obovate or subglobose, 75—80 x 60—70 μ. Each contain eight globose spores thickly clothed with obtuse, elongated, wart-like tubercles and about 20 μ in diameter. The home of the white truffle is said to be in Northern Africa, though it is not uncommon in Southern Europe, where its growth is favored by the mild winters. Fries mentions that two specimens of this species have been found in Sweden in the vicinity of Linkoping, but it is not common so far north. Its occurrence in the Red river region of Louisiana is less remarkable and makes it seem not improbable that it may be found in other localities in the Southern States.

J. B. E.

OBITUARY.

British mycology has suffered another severe loss by the death of CHRISTOPHER EDMUND BROOME, M. A., of Batheaston, for many years associated with the Rev. M. J. Berkeley in the production of numerous contributions to the Linnean Society and the Annals of Natural History. Although ten years the junior of the latter and apparently more active and vigorous, yet his friends have not failed to observe a gradual decline during the last twelve months, which has somewhat suddenly come to a fatal termination. His quiet, unassuming manners, his extreme modesty in all scientific matters and his universal kindness and geniality endeared him to all who knew him.—*Grevillea.*

NEW LITERATURE.

BY W. A. KELLERMAN.

"BRITISH PYRENOMYCETES; A PRELIMINARY LIST OF KNOWN SPECIES." By G. Massee. Grevillea, December, 1886.

"NEW BRITISH FUNGI." By M. C. Cooke. l. c.

"PRÆCURSORES AD MONOGRAPHIA POLYPORORUM." By M. C. Cooke. l.c.

"FUNGUS FORAYS, 1886." l. c.

"KRYPTOGAMEN-FLORA VON DEUTSCHLAND, OESTERREICH UND DER SCHWEIZ, PILZE, VON DR. G. WINTER, 26 LIEFERUNG, PYRENOMYCETES (SPHÆRIACEÆ).

This Lieferung is occupied mostly with the families *Diatrypeæ*, with the genera *Calosphœria*, *Quaternaria*, *Scoptria*, *Diatrypella*, *Diatrype*, and *Xylarieæ*, with the genera *Nummularia*, *Hypoxylon*, *Ustulina*, *Poronia* and *Xylaria*. Dr. Winter unites under the genus *Calosphœria* the forms (without stroma) with eight to many-spored asci, with or without beaked perithecia. *Calosphœria* possesses, besides the conidia-bearing mycelium, also special conidia-stromata which resemble the perithecia. *Diatrypella*, having asci with many spores, and *Diatrype*, having asci with eight spores, are nevertheless well distinguished by several other characters. In the large genus *Hypoxylon* are included forms that differ widely, but they are all connected by intermediate species. "Notwithstanding the difference outwardly, all the species show a decided correspondence in the structure of the ascus-layer, also, so far as known, in the structure connected with the conidia."

"THE DRY-ROT FUNGUS; MERULIUS LACHRYMANS." Worthington G. Smith, *Gardeners' Chronicle*, Dec. 13, 1886.

"UEBER ALKOHOLGÆHRUNG UND SCHLEIMFLUSS LEBENDER BÆUME, VERURSACHT DURCH ENDOMYCES MAGNUSII, N. SP. UND LEUCONOSTOC LAGERHEIMII, N. SP. VORLÆUFIGE MITTHEILUNG." Von Prof. Dr. F. Ludwig, *Hedwigia*, Bd. XXV, Heft. V, 1886.

"REVISION DER HYSTERINEEN IM HERB. DUBY." Von Dr. Rehm. l. c.

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